PUBLICATIONS RECEIVED.

Mathematical Tables, Chiefly to Four Figures, First Series. By JAMES MILLS PEIRCE, *University Professor of Mathematics in Harvard University.* 8vo. 43 pp. Boston: Ginn and Heath. 1879.

This collection of Tables, consisting of table of logarithms, table of logarithms of sums and differences, table of logarithms of circular functions, table of inverse circular functions, table of logarithms of hyperbolic functions, table of natural sines and cosines, table of natural tangents and cotangents and table of natural secants and cosecants, is made specially interesting and valuable by the very full and lucid explanations of the tables, which occupy 17 pages of the book.

Elements of the Differential Calculus, with Examples and Applications. A Text Book: By W. E. BYERLY, PH. D., *Assistant Professor of Mathematics in Harvard University.* 258 pp., 8vo. Boston: Published by Ginn and Heath. 1879.

As we could not, by a hasty review, do justice to this very hadsome volume, we quote the following paragraph from the Preface, which will sufficiently indicate the character of the book.

"Its peculiarities are the rigorous use of the Doctrine of Limits as a foundation of the subject, and as preliminary to the adoption of the more direct and practically convenient infinitesimal notation and nomenclature; the early introduction of a few simple formulas and methods for integrating; a rather elaborate treatment of the use of infiinitesimals in pure geometry; and the attempt to excite and keep up the interest of the student by bringing in throughout the whole book, and not merely at the end, numerous applications to practical problems in geometry and mechanics."

An Elementary Treatise on the Differential Calculus, Founded on the Method of Rates or Fluxions. By JOHN MINOT RICE, *Professor of Mathematics in the U. S. Navy, and* WILLIAM WOOLSEY JOHNSON, *Professor of Mathematics in St. John's College, Annapolis, Maryland. Revised Edition.* 8vo. 469 pp. New York: John Wiley and Sons. 1879.

The notion of rates, which lies at the foundation of this treatise, was first brought to notice by the authors in a paper communicated to the Amer. Acad. of Arts and Sciences in 1873, and afterward revised and pablished as a pamphlet in 1875. The present treatise consists of an exposition of the new method of obtaining the differentials of functions, occupying 103 pp. Following this, we have, Evaluation of Indeterminate Forms, Maxima and Minima, the Development of functions, 125 pp.; Curve Tracing, 51 pp.; Higher plane Curves and Application of the Diff. Cal. to plane curves, 125 pp. The remaining 55 pp. are devoted to the consideration of functions of two or more variables.

It would be superfluous for us to recommend this book to readers of the ANALYST, who are conversant with the many elegant solutions, and mathematcal papers, by Prof. Johnson (one of the authors of this book) which we have published; we may say, however, that upon the very interesting subjeet of Curve Tracing and the discussion of Higher Plane Curves, this work will be found especially interesting.

ERRATA.

On page 188 (Vol. VI), line 15, for $50\pi R^2$, read $50\pi R^2 \div \sqrt{(10)}$.
" " " " " 20, " " " " " " .
" " " " " 20, " 389.3 days, read 383.6 days.
" " 3, line 11, for q^i read q^i.
" " 5, " 23, for $2a_2 + \ldots + a_n$, read $2a_2 + \ldots + na^n$.